

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004569**Date Inspected:** 06-Nov-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Lvliqing and Sun Wei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and SAS Tower Fabrication**Summary of Items Observed:**

On this date, Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector Joselito Lizardo was present as requested to perform observations on the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China.

The QA Inspector has randomly observed the following activities on sub-assembly Bays mentioned below;

Bay 1: OBG Sub assembly

QA Inspector J. Lizardo randomly observed ZPMC welding utilizing the dual process WPS-B-T-2342-U1 (U-rib)-4 welding procedure specification for closed rib welding for Production Panel DP175-001 weld joints 001/002, 005/006 and 009/010 U-rib Partial Joint Penetration (PJP) welds in Bay #1. ZPMC welding personnel performed gantry mounted machine #2, Gas Metal Arc Welding (GMAW) for the root pass. ZPMC welders performing the task were ID #059361/062265 for 001/002, ID #059443/059468 for 005/006 and ID #059416/059378 for 009/010. This QA observed ABF/QA and ZPMC/CWI Sun Wei monitoring welding parameters.

Bay 2:

This QA Inspector observed 4-75mm thick plate marked P1553, P1554, P1490 and P700 for tower double diaphragm web plate being set-up at the machining table for machining. No Caltrans job at the cutting table and rolling machine was seen idle.

Bay 3: OBG side/bottom/edge panel

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The QA Inspector randomly observed ZPMC welder Jiang Jing Teng ID Number 046830 utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-B-L2c-S-2, to weld the fill pass on 20mm thick plate splice butt joint of bottom plate BP177-001-061. QA Inspector randomly observed ZPMC CWI Wu Ming Cai monitoring weld parameters.

Tack/fit-up of 6-WT(w18x46) rib stiffener to SP619-001-013~024 and SP725-001 using TL-508 was on going. No welding was noted on gantry 1 and 2.

Bay 4: Tower Diaphragm

The QA Inspector randomly observed ZPMC Welders ID #066457, ID #066459, ID #066179 and ID #066456 utilizing the Shielded Metal Arc Welding (SMAW) Process in the 3G (Vertical Groove) Position with ZPMC WPS WPS-B-T-3313-Tc-P5 to weld tower double diaphragm PJP fill pass on 75mm thick web plate to 60mm thick stiffener plate tee joint SSD1-SA369A/B weld joints 1, 13, 14 and 17. The QA Inspector randomly observed ZPMC CWI Zhao Chen Sun monitoring weld parameters.

This QA perform 10% MT on tower diaphragm flange SSD1-SA299-15 (59M) and SSD1-SA360-15 (62M) for green tagging.

Bay 7: OBG - Floor Beam Sub Assembly

This QA Inspector randomly observed ZPMC welder ID #044774 utilizing the FCAW Process in the 2G (Hor. Groove) Position with WPS-B-T-2232-Tc-U4b-F and a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H, semi automatic to weld fill pass on web plate to flange tee joint on floor beam FB015-024-045. FCAW(2G) CJP welding fill pass on 200mm stiffener end to web plate of FB024-005-111 was also on going. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring preheat and weld parameters.

FCAW(2F) fillet welding on stiffener and flange to web plate FB015-023 weld joints 013/014 and FB024-005-120/121 utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H following WPS-B-T-2132-3 this QA observed. ZPMC welder Liu Kaige was seen performing the task.

Bay 8: Tower Diaphragm

This QA observed ZPMC welders ID #045268, ID #051324, ID #045218 and 037997 SMAW(2G) PJP welding fill pass on 60mm stiffener plate to (bottom) tower double diaphragm SSD1-SA244A/B weld joints 11, 12, 15 and 16. ZPMC welders were noted utilizing Excalibur E9018M H4R, 4.8mm diameter electrode following WPS-B-T-3312-Tc-P5. The QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters.

Summary of Conversations:

No significant conversation occurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, (858) 232-7081, who represents the Office of Structural Materials for your project.

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Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Cuellar, Robert

QA Reviewer